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ABSTRACT

A method of separating compounds that includes the steps of: tagging at least a first organic compound with a first tagging moiety to result in a first tagged compound; tagging at least a second organic compound with a second tagging moiety different from the first tagging moiety to result in a second tagged compound; and separating the first tagged compound from a mixture including the second tagged compound using a separation technique based upon differences between the first tagging moiety and the second tagging moiety. Preferably, the separation technique is based upon difference in the fluorous nature of the first tagged compound and the second tagged compound, differences in total charge between the first tagged compound and the second tagged compound, differences in size between the first tagged compound and the second tagged compound, and/or differences in polarity between the first tagged compound and the second tagged compound. The present invention also provides a method for carrying out a chemical reaction including the steps of: tagging a plurality of compounds with different tagging moieties to create tagged compounds, conducting at least one chemical reaction on a mixture of the tagged compounds to produce a mixture of tagged products, and separating the mixture of tagged products by a separation technique based upon differences in the tagging moieties.